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CLAIMS

- A fermentation process for the production of a desired compound comprising cultivating a filamentous bacterial strain in a liquid fermentation medium, wherein the carbon containing nutrients and nitrogen containing nutrients are maintained at low concentrations in the fermentation medium.
- A fermentation process according to claim 1, wherein the concentration of the nitrogen containing nutrient in the medium is less than 0.5 g/l (expressed as gram of nitrogen per litre).
 - 3. A fermentation process according to claim 1 or 2, wherein the concentration of the carbon containing nutrient in the medium is less than 5 g/l (expressed as gram of carbon per litre).
 - 4. A fermentation process according to any one of claims 1 to 3, wherein a feed comprising carbon containing nutrients and nitrogen containing nutrients is supplied to the medium and wherein the nutrients in the feed are in such a ratio that low concentrations of both carbon and nitrogen containing nutrients are maintained in the culture.
 - 5. A fermentation process of any one of claims 1 to 4, wherein the feed is supplied to the medium via more than one subfeed and wherein each subfeed comprises nitrogen containing nutrients, carbon containing nutrients or a combination of nitrogen and carbon containing nutrients.
 - 6. A fermentation process according to any one of claims 1 to 4, wherein the amount of oxygen in the medium is between 20 and 70% of air saturation.
- A fermentation process according to claim 6, wherein the amount of oxygen in the medium is between 30 and 60% of air saturation.

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- 8. A process according to any one of claims 1 to 7, wherein the bacteria are of the family of *Actinomycetes*.
- A process according to any claim 8, wherein the bacteria are of the genus Streptomyces.
 - 10. A process according to claim 9, wherein the bacteria are Streptomyces natalensis or Streptomyces gilvosporeus and wherein the desired compound is natamycin.
 - 11. A fermentation process according to anyone of claim 1 to 10, wherein the carbon containing nutrient is for more than 50% soybean oil (calculated as gram of carbon) and the nitrogen containing nutrient is for more than 50% ammonia (calculated as gram of nitrogen).